To: Sorrenson - DNR, Allen[allen.sorenson@state.co.us]; Way, Steven[way.steven@epa.gov]; Petri, Elliott[Elliott.Petri@westonsolutions.com]; Mark Levin[mark.levin@minenv.com]
From: Matt Francis
Sent: Fri 7/10/2015 1:56:28 AM
Subject: Red and Bonita Pre-mobilization Conference Call

Please plan on a conference call tomorrow (July 10) to discuss questions/concerns presented by MES. I'll distribute a bulleted agenda tomorrow to summarize the items that were circulated this evening. I suggest we start with the access concerns to give Allen more time to join in before getting to the items he's more involved with.

Time 1230
call in 866 299 9141
code 18782456

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

-------- Original message --------
From: "Sorrenson - DNR, Allen" <allen.sorenson@state.co.us>
Date: 07/09/2015 5:06 PM (GMT-07:00)
To: "Way, Steven" <way.steven@epa.gov>, "Petri, Elliott" <Elliott.Petri@westonsolutions.com>, Matt Francis <m.francis@erllc.com>
Subject: Re: Request for Information

The 3/4 inch works fine for monitoring and sampling, but a 1 inch allows a higher flow rate for injectate. Elliot, did you ever crunch those numbers? The same thrust plate dimensions can be used on either 3/4 or 1 inch lines. I'd lean toward staying with 3/4 inch line since MES is wanting to commence fabrication ASAP and it's a little late to shift gears.

On Thu, Jul 9, 2015 at 5:00 PM, Way, Steven <way.steven@epa.gov<mailto:way.steven@epa.gov>> wrote:

Regarding the sample/ injection/ pressure gauge pipe, we discussed changing to a 1" line. Allen do have a preference?

Sent from my iPhone

On Jul 9, 2015, at 4:53 PM, Sorrenson - DNR, Allen <allen.sorenson@state.co.us<mailto:allen.sorenson@state.co.us>> wrote:

1. Thrust plate dimensions in the specification are correct.

2. Common pressure gauge, 0-600 psi, 20 psi minor graduations is acceptable.

3. The primary purpose of the 3/4" line is monitoring and sampling; injection is a secondary purpose. The pressure gauge will be installed on the 3/4" line with globe valves on both sides, and the "Y" and check valve will be installed in accordance with the specification.

4. The distance from the back form of the bulkhead to the cofferdams on each branch of the adit will be as small as possible without causing the maximum height and width of bulkhead to be exceeded, but this distance has not been measured.

5. The intersection angle of the two headings inby the bulkhead were shot with a compass, so it cannot be said that the angle is very close to the 45 degrees shown on the map.

On Thu, Jul 9, 2015 at 3:44 PM, Way, Steven <way.steven@epa.gov<mailto:way.steven@epa.gov>> wrote:
Allen - we need your input on the MES questions.

Sent from my iPhone

Begin forwarded message:

From: Matt Francis <m.francis@erllc.com<mailto:m.francis@erllc.com>>
Date: July 9, 2015 at 3:38:11 PM MDT
To: "Way, Steven" <way.steven@epa.gov<mailto:way.steven@epa.gov>>
Subject: Fwd: Request for Information

Sent via the Samsung Galaxy Note® 3, an AT&T 4G LTE smartphone

-------- Original message --------
From: Mark Levin <mark.levin@minenv.com<mailto:mark.levin@minenv.com>>
Date: 07/09/2015 3:36 PM (GMT-07:00)
To: Matt Francis <m.francis@erllc.com<mailto:m.francis@erllc.com>>
Cc: willbere@rvi.net<mailto:willbere@rvi.net>
Subject: Request for Information

Hi Matt:

I am in the midst of going through the details on the piping, as the stainless steel is a long lead time item, and especially the shop fabricated items.

Several questions:

1) ¾ inch Line and 8-inch line – Thrust plates: The plates seem very large for a ¾" line and slightly small for an 8" line.

The specifications appear to call for 10"x10"x1/4" thrust plates on the ¾" line and 14.5" x 14.5"x1/2" thrust plates on the 8" line. The OD of ANSI standard ¾" SS pipe is 1.05" and of the 8" pipe is 8.625". The plates thus extend a minimum of 4.475" from the ¾" line (4.26 times OD) and only extend 2.9375" inches from the perimeter of the 8" line (0.34 times OD). Are we understanding this correctly? If so, can you ask the designer to verify that the thrust plate dimensions are correct?

2) Pressure Gauge - The specification calls for a 0-600 psi gauge with 2 psi minor graduations (about 293 minor lines, less major lines). Our suppliers are unaware of any common analog mechanical gauges

that come with that resolution. Is the designer aware of one that has this resolution and which is likely to be commercially stocked ?

Alternatively, we have contacted a top tier gauge specialty company, Wika – they can provide a 10" dial diameter, stainless steel wetted parts gauge from Germany with 20 psi major graduations and 1 psi minor graduations – lead time AFTER they get a firm order from a distributor is generally 30 days and potentially could be up to about 45 days plus time for customs clearance and then domestic shipment time to the distributor. Or, they can custom print a gauge dial with the required 2 psi graduations and that will take additional time.

See attached. This gauge would appear to exceed the specification. We would need to launch an order very quickly to avoid delay.

Another alternative at extra cost (about $1500) is we can more quickly source an electronic digital gauge which provides high accuracy but I question the value in light of the other electronic monitoring instruments already being installed.

Finally, we could readily provide a common commercially available 0-600 psi gauge which would typically have lower psi resolution – typically 20 psi minor scale and 100 psi major scale increments are common for a 0-600 range for small diameter gauges. The higher accuracy readings would presumably come from the electronic instruments.

Please indicate which direction we should pursue and I will move forward.

3) Can the check valve and "Y" fitting on the wet side of the ¾ line be omitted if a sampling "T" and valve is installed in the same line that the pressure gauge tapped into the 8-inch line? This could potentially provide a more reliable means of sampling in that it would avoid any future issue of mechanical problems with an inaccessible check valve. Prior bulkhead installations have utilized such as system. (For clarity , in that case, the ¾" line would serve only as an injection line.)

4) Is there an actual distance measurement from the planned back form of the bulkhead to the cofferdams on each branch of the adit?

5) Is the intersection angle actually very close to 45 degrees as shown on the map ? If so, we can use a standard stainless steel "T" and a flanged 45. If not, a custom "Y" will need to be fabricated. This is long lead time.

In anticipation of a prompt response, I remain,

Mark Levin, P.E.
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[cid:image001.png@01D0997E.116512B0]
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Allen C. Sorenson

Project Manager/Geological Engineer

Inactive Mine Reclamation Program

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Allen C. Sorenson

Project Manager/Geological Engineer

Inactive Mine Reclamation Program

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